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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,311	11/18/2003	Jean-Christophe Deniau	2003P01237US01; 60426-616	6905
24500	7590	03/24/2005	EXAMINER GOINS, DAVETTA WOODS	
SIEMENS CORPORATION INTELLECTUAL PROPERTY LAW DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830			ART UNIT 2632	PAPER NUMBER

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/716,311	Applicant(s) DENIAU, JEAN-CHRISTOPHE	
	Examiner Davetta W. Goins	Art Unit 2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/4/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderslice, Jr. et al. (US Pat. 5,362,942) in view of Miller (US Pat. 6,271,648 B1).

In reference to claim 1, Vanderslice discloses a) the claimed battery, which is met by battery 10 (col. 3, lines 1-24), b) the claimed energy storage device that selectively supplies power to the transmission device, which is met by DC charger power supply 18 (col. 3, lines 1-24), and c) the claimed processor in communication with the battery, and emergency storage device, which is met by temperature controller 16 that monitors the temperature of the battery 10 via temperature sensor 14 as well as determining the level of voltage of battery 10 via voltage sensor (col. 3, lines 1-44). Vanderslice does not disclose the claimed transmission device powered by the battery or the processor allows the energy storage device to charge if the processor predicts that a battery voltage will fall below the nominal voltage during operation of the transmission device.

However, he does disclose a DC charger 18 used to provide stored power to battery 10 once the temperature control circuit 16 has determined that the voltage of battery 10 has fallen below a threshold as well as the temperature falling below a threshold (col. 3, lines 25-68; col. 4, lines 1-24). Miller discloses a vehicle that's operated by a battery 34; battery 34 is connected to a

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controller 30 and rotor assembly that receives voltage to operate transmission assembly 22 and power the vehicle's driveline 24 (col. 3, lines 16-45). Since Vanderslice discloses a controller used to determine whether to charge and use a storage device, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching of using a transmission device, as disclosed by Miller, to ensure that the vehicle will get the proper amount of power needed to operate the driveline.

In reference to claim 2, although neither Vanderslice or Miller specifically disclose the claimed lithium battery, it would have been obvious to one of ordinary skill in the art at the time of the invention to use any type of battery that is commonly known in the art for detecting both the temperature and voltage, as disclosed by Vanderslice.

In reference to claim 3, although neither Vanderslice or Miller disclose the claimed transmission device is a phase locked loop device, it would have been obvious to one of ordinary skill in the art at the time of the invention to use a PLL circuit for determining the frequencies of the received reflection signals, and calculates the difference between the frequencies of the two received signals.

In reference to claim 4, Vanderslice discloses the claimed energy storage device is a capacitor, which is met by capacitor C1 (col. 4 lines 25-48).

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3. Claims 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderslice et al. in view of Miller as applied to claim 1 above, and further in view of Dougherty et al. (US Pat. 6,144,185).

In reference to claim 5, 10-15, 18-20, although Vanderslice does not specifically disclose the claimed processor predicts that the battery voltage will fall below the nominal voltage if the battery voltage falls below a voltage threshold, he does disclose a temperature controller 16 that senses the temperature of battery 10 along with the amount of voltage from the battery, the controller includes a comparator 36 that compares the sensed values and includes a timer 44 before determining whether to cause charger 18 to charge (col. 4, lines 65-68; col. 5, lines 1-62). Dougherty discloses a method for determining the condition of a battery; a controller 24 is used to as part of the second heavy load test, a predicted temperature of a battery 12 is first obtained. This is done in a well known manner that uses measured battery clamp temperature to make an estimate of internal battery temperature (col. 5, lines 15-62). Since Vanderslice discloses a means for comparing the sensed temperature and/or voltage to a set threshold in order to determine whether to use DC charger 18, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the teaching predicting the battery voltage will fall, as disclosed by Dougherty, with the systems of Vanderslice and Miller, to determine whether or not the battery is capable of being substantially fully charged, thereby permitting avoidance of unneeded charging.

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In reference to claims 6, 7, 16, 17, Vanderslice discloses the claimed voltage threshold is equal to the nominal value, which is met by the comparator 36 sensing the battery charge level, the battery voltage corresponding to a predetermined lower charge level (col. 4, lines 58-68; col. 5, lines 1-5).

In reference to claims 8, 9, Vanderslice discloses the claimed temperature sensor in communication with the processor, which is met by temperature control circuit 16 connected to temperature sensor 14 (Figure1).

4. The prior art of record and not relied upon is considered pertinent to the applicant's disclosure as follows. Blair (US Pat. 5,783,872), Rockenbauch (US Pat. 6,144,189), Yudahira et al. (US Pat. 6,639,408 B2), and Hanada et al. (US Pat. 6,798,175 B2), which disclose power supply circuits.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 571-272-2957.

The examiner can normally be reached on Mon-Fri with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 571-272-2964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D.W.G.

March 18, 2005

Davetta W. Goins
Primary Examiner
Art Unit 2632